

## RESOLUTION 660 (WRC-19)

**Use of the frequency band 137-138 MHz by non-geostationary satellites with short-duration missions in the space operation service**

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

*considering*

- a) that the term “short-duration mission” is used in accordance with Resolution **32 (WRC-19)**;
- b) that non-geostationary-satellite orbit (non-GSO) systems identified as short-duration mission are constrained in terms of low on-board power and low antenna gain;
- c) that the studies in Report ITU-R SA.2427 have indicated that the frequency bands 150.05-174 MHz and 400.15-420 MHz are not suitable for non-GSO systems in the space operation service (SOS) with short-duration missions;
- d) that the overall occupied bandwidth of any emission should be maintained completely within the frequency band allocated to the application identified in the SOS with short-duration missions, including any offsets such as Doppler shift or frequency tolerances;
- e) that, due to operational restrictions, only one non-GSO short-duration mission satellite is transmitting per channel at a given time in the same geographic area;
- f) that Report ITU-R SA.2425 provides studies related to the spectrum requirements for telemetry, tracking and command (TT&C) in the SOS for non-GSO systems with short-duration missions,

*recognizing*

- a) that the frequency range 108-137 MHz is allocated to the aeronautical mobile (R) service and is used for critical safety-of-life air-ground communications to ensure the safe operation of aircraft;
- b) that the technical characteristics for TT&C in the SOS below 1 GHz for non-GSO systems with short-duration missions are found in Report ITU-R SA.2426,

*resolves*

- 1 that the use of the SOS (space-to-Earth) for non-GSO systems with short-duration missions in the frequency range 137-138 MHz shall be limited to the frequency band 137.025-138 MHz;
- 2 that, in the frequency band 137.025-138 MHz, the power flux-density at any point on the Earth’s surface produced by a space station of non-GSO SOS systems used for short-duration missions in accordance with Appendix 4 shall not exceed  $-140 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ ;
- 3 that administrations wishing to implement the SOS (space-to-Earth) in the frequency band 137.025-138 MHz by means of non-GSO systems for short-duration missions shall ensure compliance with *considering d)*,

**RES660-2**

*invites the ITU Radiocommunication Sector*

to conduct, as a matter of urgency, relevant studies of technical, operational and regulatory aspects in relation to the implementation of this Resolution,

*instructs the Director of the Radiocommunication Bureau*

to present to the next world radiocommunication conference a progress report relating to the implementation of this Resolution.